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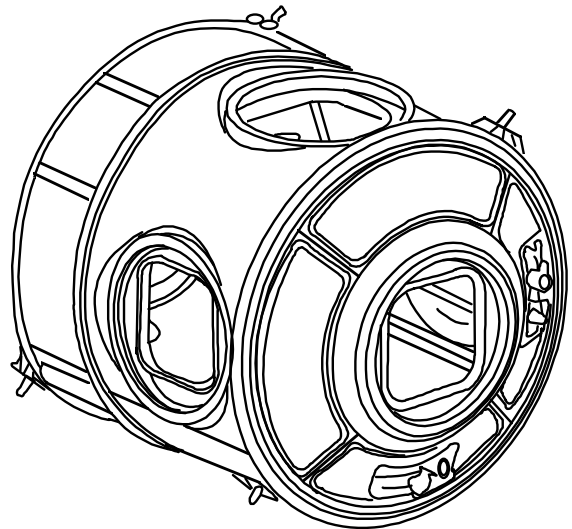
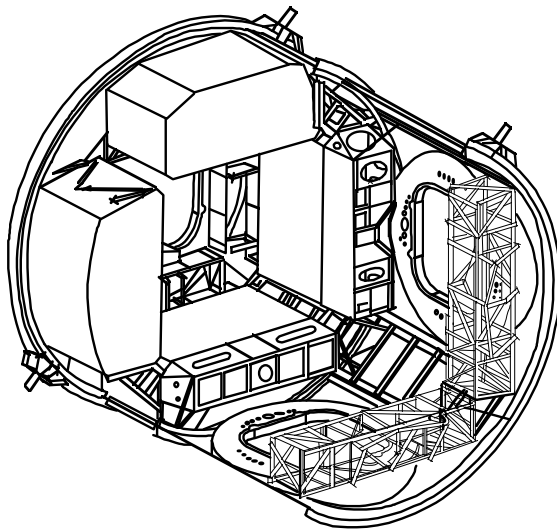
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NODE 1 INTERNATIONAL SPACE STATION BACKGROUND INFORMATION

Node 1, a connecting passageway to living and work areas of the International Space Station, will undergo final installation of hardware and checkout at Kennedy Space Center, Fla. in preparation for its July 1998 Space Shuttle launch. The 22-foot-long, 18-foot-diameter node will join the U.S.-funded and Russian-built functional cargo block (FGB) and be the first major U.S.-built component of the station.

Major installation of hardware in Node 1, the first of three nodes that will be part of the station, was completed earlier this month at NASA's Marshall Space Flight Center, Ala., by a McDonnell Douglas-led team comprised of Boeing, McDonnell Douglas and NASA personnel.

In addition to its connection to the FGB, the node will serve as a passageway to the



Node 1, shown in interior and exterior views, is the connecting point for future U.S. modules

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U.S. laboratory module, U.S. habitation module, or living quarters, and an airlock.

Essential elements such as fluids, as well as the environmental control, life support, electrical and data systems, must be routed through the node because it is a connector to work and living areas. More than 50,000 mechanical items, 216 lines to carry fluids and gases, and 121 internal and external electrical cables using six miles of wire were installed.

A McDonnell Douglas, Boeing Company and subcontractor team of 200 supported installation of the equipment and systems.

Installation of the hardware took place in a clean room and the node was placed in a rotating tooling fixture which permitted technicians and engineers easier access to all areas. The detailed and complex hardware installation required 1,800 drawings for just the McDonnell Douglas portion of the work.

The node is made of aluminum and was fabricated by Boeing, the U.S. prime contractor for Space Station. A cylinder-like structure, the node has six hatch, or door frames, which serve as docking ports for the other modules.

Pressurized Mating Adapters (PMAs), which are cone-shaped, tunnel-like hardware, will be installed on the node at Kennedy Space Center. One PMA will serve as a docking port for the Space Shuttle Orbiter and the other as a connecting tunnel from the node to other modules. A PMA supplies the computers which provide command and control of the node. The PMAs were built by McDonnell Douglas in Huntington Beach, Calif.

The International Space Station will allow scientists to conduct long-duration experiments and research in the environment of space. It is the largest peacetime scientific mission in history and combines the resources of the U.S., Russia, Japan, Canada, Belgium, Denmark, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland and United Kingdom.

When completely assembled in 2002, the International Space Station will have a mass of nearly 1 million pounds and provide more than 46,000 cubic feet of pressurized living and working space for up to seven astronauts and scientists.